

ABSTRACT

A process that removes nitrogen by the MLE Process or nitrogen and phosphorus by the Bio-P Process from municipal or industrial wastewaters by combining at least one dual-use jet recirculation pump with jet manifolds disposed at the bottoms of deep tanks functioning as Reactors to withdraw mixed liquor from a flow-connected tank and mixed liquor from a downstream tank in selected amounts, both mixed liquors being pumped to the jet manifold within the flow-connected tank that mixes the contents of the tank, whereby higher operating costs for electric power and higher capital costs for larger pumps and piping are avoided.